



# Memorandum

**TO:** HONORABLE MAYOR AND  
CITY COUNCIL

**FROM:** John Stufflebean

**SUBJECT: MUNICIPAL WATER SYSTEM  
RATE COMPARISON**

**DATE:** May 29, 2007

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Approved	/s/	Date	05/30/07
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## **BACKGROUND**

On May 14, 2007, during the Operating Budget Study Session, Vice Mayor Cortese requested that staff provide a comparison of proposed 2007-2008 San Jose Municipal Water System (SJMWS) water rates and structure with those rates and structures proposed by San Jose Water Company (SJWC) and Great Oaks Water Company (GOWC).

## **ANALYSIS**

The San Jose Municipal Water System (SJMWS) is a self-sustaining rate-funded utility providing water service to 26,000 accounts with an approximate population of 109,000 in the North San Jose, Alviso, Evergreen, Edenvale, and Coyote Valley areas.

SJMWS's two principal sources of revenue are water sales and fixed monthly meter service charges. Rates are established to pay for both operating costs and capital improvements. Except for the cost of wholesale water and energy which represents approximately 57% of the budget, all other operating costs are considered fixed.

Under California Public Utilities Commission (CPUC) guidelines, water companies can recover 50 percent of their fixed costs in quantity charges and 50 percent in monthly meter charges. Fixed costs are to include:

- Maintenance expenses;
- Transmission and distribution expense;
- Customer account expense, excluding uncollectibles;
- Administrative and general expense;
- Depreciation expense;
- Tax expense (i.e., in-lieu fees);
- Return on investment.

The costs of wholesale water and energy are pass along directly to customers through water sales in quantity charges.

## **ANALYSIS (CONT'D.)**

### **Rate Structure**

SJMWS's rate structure includes two components, a fixed service charge based on the size of the customer's meter (meter charge), and a variable quantity charge based on the amount of water an individual customer used, and the elevation to which the utility must pump the water. Quantity charges are assessed differently for residential and non-residential customers. Residential quantity charges are developed under a four-block inclining rate structure to encourage conservation, while non-residential quantity charges are developed under a uniform (single block) rate structure. Both residential and non-residential quantity charges also increase depending on the zone (elevation range) of the individual service. The zone-based rate blocks are designed to recover the increased cost incurred to pump the water to higher elevations.

Similar to SJMWS, the rate structures for both San Jose Water Company (SJWC) and Great Oaks Water Company (GOWC) include a fixed service charge based on the size of the customer's meter. Attachment A shows a comparison of SJMWS's current meter charges versus GOWC's and SJWC's. As can be seen in Attachment A, SJMWS's meter charges result in the lowest revenue from customers of the three water retailers. GOWC's and SJWC's meter charges would generate revenue 43.2% and 96.2% higher, respectively. Attachment B shows a comparison of SJMWS's proposed meter charges, assuming a 12% increase versus GOWC's and SJWC's assuming no increase. As can be seen in Attachment B, SJMWS's meter charges would still result in the lowest revenue from customers of the three water retailers.

Unlike SJMWS, GOWC's and SJWC's water quantity charges currently are set at a flat rate. It should be noted that on March 19, 2007, SJWC filed an application with the California Public Utilities Commission (CPUC) requesting, among other things, approval for a residential rate design with increasing charges for higher monthly usage (increasing block rates) to encourage conservation. In addition, both SJWC and GOWC assess a CPUC surcharge of 1.4%, and GOWC's billing adds a 2% City franchise fee surcharge.

### **Rate Comparison**

On April 27, 2007, notices were sent out advising SJMWS customers of an impending water rate increase of up to 12% to recover increasing costs. Following is an analysis of the impact of the proposed maximum rate increase, which assumes a wholesale water rate increase of \$85 per acre-foot (1 acre-foot (AF) = 326,000 gallons), should it occur. The final magnitude of the increase will not be known until the respective Boards of the wholesale water providers officially adopt rates, which should occur in mid to late June. Based on recent discussions with the staff of the wholesale agencies, it appears that the necessary increase will be less than originally discussed.

Due to the variable nature of service size and individual water usage, and elevation of the service, average water usage is used for illustration purposes. The average residential water usage in the greater Bay Area is 14 hundred cubic feet (HCF\*) per month. In the SJMWS service area the average residential water usage is 15 HCF per month. The following tables utilize the average water usage in SJMWS service area (15 HCF) and further utilize a service

**ANALYSIS (CONT'D.)**

size of a 5/8" meter. A separate calculation of an average bill is presented for each of the four zones.

**Zone 1** (Elevation 0 to 275 feet), (63% of the customers in Zone 1)

	<u>Current</u>	<u>Proposed (12%)</u>
Tier 1: 0 to 7 HCF*	\$1.54	\$1.72
Tier 2: 7 to 14 HCF	\$1.76	\$1.97
Tier 3: 14 to 21 HCF	\$1.96	\$2.20
Tier 4: > 21HCF	\$2.16	\$2.42

Average Monthly Water Bill = \$31.81 \$35.59

**Zone 2** (Elevation 275 to 375 feet), (9% of the customers are in Zone 2)

	<u>Current</u>	<u>Proposed (12%)</u>
Tier 1: 0 to 7 HCF	\$1.62	\$1.81
Tier 2: 7 to 14 HCF	\$1.84	\$2.06
Tier 3: 14 to 21 HCF	\$2.04	\$2.28
Tier 4: > 21HCF	\$2.24	\$2.51

Average Monthly Water Bill = \$33.01 \$36.93

**Zone 3 & 4** (Elevation 375 to 630 feet), (20% of the customers are in Zone 3/4)

	<u>Current</u>	<u>Proposed (12%)</u>
Tier 1: 0 to 7 HCF	\$1.69	\$1.89
Tier 2: 7 to 14 HCF	\$1.91	\$2.14
Tier 3: 14 to 21 HCF	\$2.11	\$2.36
Tier 4: > 21HCF	\$2.31	\$2.59

Average Monthly Water Bill = \$34.06 \$38.13

**Zone 5 & 6** (Elevation 630 to 880 feet), (8% of the customers are in Zone 5/6)

	<u>Current</u>	<u>Proposed (12%)</u>
Tier 1: 0 to 7 HCF	\$1.77	\$1.98
Tier 2: 7 to 14 HCF	\$1.99	\$2.23
Tier 3: 14 to 21 HCF	\$2.19	\$2.45
Tier 4: > 21HCF	\$2.39	\$2.68

Average Monthly Water Bill = \$35.26 \$39.48

\*1 HCF = 748 gallons

**ANALYSIS (CONT'D.)****Weighted Average (All Zones) for a SJMWS Residential Customer** (5/8" meter, 15 HCF)

Current:  $\$31.81 * 0.63 + \$33.01 * 0.09 + \$34.06 * 0.20 + \$35.26 * 0.08 = \underline{\underline{\$32.64}}$

Proposed:  $\$35.59 * 0.63 + \$36.93 * 0.09 + \$38.13 * 0.20 + \$39.48 * 0.08 = \underline{\underline{\$36.53}}$

The magnitude of GOWC and SJWC rate increases are not known at this time due to the uncertainty surrounding the wholesale water rate increase. The following analysis assumes that the same wholesale rate increase (\$85/AF), which was presented by SCVWD staff and contained the SJMWS customer notification is passed through to these system's customers as is typically the case. It is unknown at this time what other cost increases will be included in GOWC and SJWC rate increase requests to the CPUC.

**Average GOWC Monthly Bill**

	<u>Current</u>	<u>\$85/AF</u>	<u>Estimated</u>
Quantity Charge: 15 HCF * \$1.609 =	\$24.14	\$1.804	\$27.06
Service Charge: 5/8-inch meter	\$7.26		\$7.26
Subtotal	\$31.40		\$34.32
PUC Fee (1.4%)	\$0.44		\$0.48
Franchise Fee (2%)	<u>\$0.63</u>		<u>\$0.69</u>
GOWC Monthly Bill	\$32.47		\$35.49

**Average SJWC Monthly Bill**

	<u>Current</u>	<u>\$85/AF</u>	<u>Estimated</u>
Quantity Charge: 15 HCF * \$2.1745=	\$32.62	\$2.3695	\$35.54
Service Charge: 5/8-inch meter	\$13.18		\$13.18
Subtotal	\$45.80		\$48.72
PUC Fee (1.4%)	<u>\$0.64</u>		<u>\$0.68</u>
SJWC Monthly Bill	\$46.44		\$49.40

**ANALYSIS** (CONT'D.)

The following table compares **current** SJMWS monthly water bills to GOWC and SJWC for various customer types:

<u>Average Monthly Water Bill</u>			
<u>Customer Type</u>	<u>SJMWS</u>	<u>GOWC</u>	<u>SJWC</u>
Residential 5/8" Meter 15 HCF	\$32.64	\$32.47	\$46.44
Residential 3/4" Meter 15 HCF	\$32.79	\$36.22	\$46.44
Residential 3/4" meter 30 HCF	\$64.83	\$61.17	\$81.07
Commercial 2" Meter 100 HCF	\$213.00	\$226.37	\$297.53
Industrial 8" Meter 500 HCF	\$1,080.00	\$1,432.33	\$1,851.11

The following table compares **estimated** SJMWS monthly water bills to GOWC and SJWC for various customer types assuming an \$85/AF wholesale water rate increase is passed through in retail rates:

<u>Average Monthly Water Bill</u> (effective July 1, 2007)			
<u>Customer Type</u>	<u>SJMWS</u>	<u>GOWC</u>	<u>SJWC</u>
Residential 5/8" Meter 15 HCF	\$36.53	\$35.49	\$49.40
Residential 3/4" Meter 15 HCF	\$36.70	\$39.24	\$49.40

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**ANALYSIS** (CONT'D.)

Residential 3/4" meter 30 HCF	\$72.61	\$67.22	\$85.44
Commercial 2" Meter 100 HCF	\$238.44	\$246.58	\$311.55
Industrial 8" Meter 500 HCF	\$1,209.00	\$1,533.15	\$1,914.18

/s/

JOHN STUFFLEBEAN

Director, Environmental Services

For questions, please call Mansour Nasser, Deputy Director, at 277-4218.

Attachment A

**Current Meter Charge Comparison  
SJMWS Vs. GOWC & SJWC  
January 1, 2007**

Meter Size	# of Meters	<b>SJMWS</b> \$/Meter	Annual Meter Revenues	<b>GOWC</b> \$/Meter	Annual Meter Revenues	<b>SJWC</b> \$/Meter	Annual Meter Revenues
5/8"	13597	\$6.75	\$1,101,357.00	\$7.26	\$1,184,570.64	\$13.18	\$2,150,501.52
3/4"	8606	\$6.90	\$712,576.80	\$10.89	\$1,124,632.08	\$13.18	\$1,361,124.96
1"	1332	\$12.00	\$191,808.00	\$18.15	\$290,109.60	\$21.97	\$351,168.48
1.5"	456	\$24.00	\$131,328.00	\$36.30	\$198,633.60	\$43.94	\$240,439.68
2"	1206	\$37.00	\$535,464.00	\$58.07	\$840,389.04	\$70.30	\$1,017,381.60
3"	330	\$70.00	\$277,200.00	\$108.89	\$431,204.40	\$131.81	\$521,967.60
4"	71	\$107.00	\$91,164.00	\$181.48	\$154,620.96	\$219.68	\$187,167.36
6"	33	\$140.00	\$55,440.00	\$362.96	\$143,732.16	\$439.37	\$173,990.52
8"	14	\$200.00	\$33,600.00	\$580.74	\$97,564.32	\$703.00	\$118,104.00
10"	3	\$250.00	\$9,000.00	\$834.82	\$30,053.52	\$1,010.56	\$36,380.16
<b>Total</b>	<b>25648</b>		<b>\$3,138,937.80</b>		<b>\$4,495,510.32</b>		<b>\$6,158,225.88</b>
				<i>Variance</i>	<b>\$1,356,572.52</b>		<b>\$3,019,288.08</b>
					<b>43.2% higher</b>		<b>96.2% higher</b>

Note: Meter charges were last adjusted in July 2005. Using the existing customer base, the above table shows the revenue from current SJMWS's meter charges and what the revenue would be by applying GOWC's & SJWC's schedule of charges.

## Attachment B

### Current Meter Charge Comparison SJMWS Vs. GOWC & SJWC Effective July 1, 2007

Meter Size	# of Meters	SJMWS \$/Meter	Annual Meter Revenues	GOWC \$/Meter	Annual Meter Revenues	SJWC \$/Meter	Annual Meter Revenues
5/8"	13597	\$7.56	\$1,233,519.84	\$7.26	\$1,184,570.64	\$13.18	\$2,150,501.52
3/4"	8606	\$7.73	\$798,292.56	\$10.89	\$1,124,632.08	\$13.18	\$1,361,124.96
1"	1332	\$13.44	\$214,824.96	\$18.15	\$290,109.60	\$21.97	\$351,168.48
1.5"	456	\$26.88	\$147,087.36	\$36.30	\$198,633.60	\$43.94	\$240,439.68
2"	1206	\$41.44	\$599,719.68	\$58.07	\$840,389.04	\$70.30	\$1,017,381.60
3"	330	\$78.40	\$310,464.00	\$108.89	\$431,204.40	\$131.81	\$521,967.60
4"	71	\$119.84	\$102,103.68	\$181.48	\$154,620.96	\$219.68	\$187,167.36
6"	33	\$156.80	\$62,092.80	\$362.96	\$143,732.16	\$439.37	\$173,990.52
8"	14	\$224.00	\$37,632.00	\$580.74	\$97,564.32	\$703.00	\$118,104.00
10"	3	\$280.00	\$10,080.00	\$834.82	\$30,053.52	\$1,010.56	\$36,380.16
Total	25648		\$3,515,816.88		\$4,495,510.32		\$6,158,225.88
				<i>Variance</i>	<b>\$979,693.44</b>		<b>\$2,642,409.00</b>
					27.9% higher		75.2% higher

Note: Using the existing customer base, the above table shows the revenue from proposed SJMWS's meter charges and what the revenue would be by applying GOWC's & SJWC's schedule of charges. It should also be noted that no increase in GOWC or SJWC meter charges is assumed.